

Remarks/Arguments:

Applicants' disclosure is directed to a plasma display panel (PDP). The PDP includes an exhaust pipe disposed outside of the PDP and a gas adsorption member which is movable within a region of the exhaust pipe. The gas adsorption member has one or more holes formed therein. The PDP also includes a communication hole through which gases may pass between the PDP and the exhaust pipe. A combined total cross section area of the one or more holes is greater than a cross section area of the communication hole.

On page 2 of the Official Action, under the heading "Claim Rejections - 35 USC § 103," the Examiner rejects claims 1, 4, 5, 9 and 10 under 35 U.S.C. § 102(b) as anticipated by 'Gas Display Panel,' IBM Technical Disclosure Bulletin, June 1974 pages 284-285 ("IBM"), Gowlett (U.S. Patent No. 5,012,102) and Pepi (U.S. Patent No. 5,519,284). In the substantive portion of the rejections, however, the Examiner appears to reject claims 1, 4, 5, 9 and 10 based on a combination of IBM, Gowlett and Pepi. Accordingly, the Examiner's rejection is treated herein as a rejection of claims 1, 4, 5, 9 and 10 under 35 U.S.C. § 103(a) as obvious over IBM, Gowlett and Pepi.

IBM discloses a gas display panel. As shown in FIG. 1, the panel includes a ring-shaped getter 8 disposed in a pumping stem 14. A hole 4 is formed in the panel. The ring-shaped getter 8 is fixed to the hole 4 via a support 6.

Gowlett discloses an evacuating system for an infrared detector. As shown in FIG. 3A, movable getters 30 are disposed in evacuation tube 35. A screen 32 is disposed in the tube 35 to block an opening to the outer chamber 12 thereby to prevent the getters 30 from entering the outer chamber 12. An outer diameter of each of the getters 30 is smaller than an inner diameter of the tube 35. See col. 5, lines 37-54; col. 7, lines 61-64; and col. 8, lines 37-47.

Pepi discloses a pumping stem for a flat display screen. As shown in FIG. 3, an aperture 22 is formed in the display screen. The pumping stem 20 is attached to the display screen so as to cover the aperture 22. As shown in FIGs. 3 and 4, multiple getter elements 15 are disposed around the aperture 22.

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

...the exhaust pipe including a connecting portion which connects the exhaust pipe to the at least one of the plates having the communication hole and a tubular portion, the connecting portion

having a larger average inner diameter than an inner diameter of the tubular portion...

...the gas adsorption member being movable within the connecting portion of the exhaust pipe and having an outer diameter that is greater than the inner diameter of the tubular region.... (Emphasis added).

This feature is found in the originally filed application at page 6, lines 1-5; page 7, lines 19-26; and FIG. 3. No new matter has been added.

With respect to IBM, IBM's getter is fixed to the hole. See page 1, paragraph 3 and FIG. 1. Thus, IBM's getter is not "movable within the connecting portion of the exhaust pipe," as required by Applicants' claim 1.

With respect to Pepi, Pepi discloses a plurality of getters disposed around a perimeter of the aperture 22. See Pepi col. 3, lines 12-24 and FIGs. 3 and 4. Thus, while Pepi discloses a plurality of getters that may be formed in a ring-like shape, this is not the same as "a gas adsorption member having one or more holes...formed therein," as required by Applicants' claim 1 (emphasis added). Further, in Pepi, "[t]he advantage of disposing the getter peripherally with respect to the exhaust tube is that section of the exhaust tube is not reduced before closure of the tube." See Pepi col. 3, lines 18-19. If Pepi's getters were not fixed to plate 1 (see FIG. 3), the getters would move, thus increasing the chance that at least one of the multiple getters will block the exhaust tube before closure of the tube. Thus, Pepi's getters must be fixed to plate 1. Further, Pepi is silent with respect to movability of its getters. Accordingly, Pepi also does not disclose "a gas adsorption member...being movable within the connecting portion of the exhaust pipe," as required by Applicants' claim 1.

With respect to Gowlett, it discloses getters that are movable within an evacuation tube. Gowlett does not disclose that the getters are movable within the connecting region of the exhaust pipe (the connecting portion is a portion of the exhaust pipe that connects the exhaust pipe to the at least one of the plates having the communication hole and has a larger average inner diameter than an inner diameter of a tubular portion of the exhaust pipe). Thus, Gowlett also does not disclose "a gas adsorption member...being movable within the connecting portion of the exhaust pipe," as required by Applicants' claim 1.

With respect to the alleged combination of IBM, Pepi and Gowlett, the alleged combination is improper because Gowlett teaches away from the embodiment recited in Applicants' claim 1. See MPEP 2141.03VI ("A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.").

Gowlett's entire disclosure is directed to getters which move within a tubular portion of an exhaust pipe. "By locating the getter within the tubulation used to evacuate the device, problems which otherwise arise in trying to accommodate the getter within the device chamber are avoided." However, the getter falling into the tubular portion of the exhaust tube is exactly what Applicants avoid with the gas adsorption member "having an outer diameter that is greater than the inner diameter of the tubular region." Additionally, because Gowlett's getters are movable within a tubular region of the exhaust tube, they must necessarily have outer diameters that are smaller than the inner diameter of the tubular region. Accordingly, Gowlett cannot properly be combined with IBM and Pepi because Gowlett teaches away from their combination.

It is because Applicants include the features of "the exhaust pipe including a connecting portion which connects the exhaust pipe to the at least one of the plates having the communication hole and a tubular portion, the connecting portion having a larger average inner diameter than an inner diameter of the tubular portion" and "the gas adsorption member being movable within the connecting portion of the exhaust pipe and having an outer diameter that is greater than the inner diameter of the tubular region," that the following advantages are achieved. For a PDP with a movable getter, if the getter moves into a position such that it is covering at least a portion of the communication hole, gases may still flow between the PDP and the exhaust pipe by way of the one or more holes. The getter is also prevented from falling into/clogging the communication hole.

Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

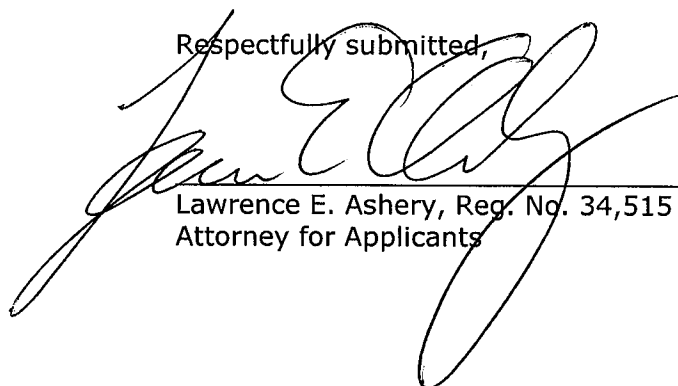
Claims 4, 5, 9 and 10 include all features of claim 1 from which they depend. Thus, claims 4, 5, 9 and 10 are also patentable over the art of record for the reasons set forth above.

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In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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